SANTA CRUZ BIOTECHNOLOGY, INC.

MIBP1 (T-20): sc-10685



BACKGROUND

MIBP1 (c-Myc intron 1 binding protein), previously named MBP-2 and HIV-EP2, is a nuclear protein that contains two zinc-finger regions, a nuclear translocation signal, and an acidic region. MIBP1 is expressed in both embryonic as well as adult brain and skeletal muscle. MIBP1 binds specifically to the SSTR-2 (somatostatin hormone receptor) promoter via the TC box, which is reqired for enhanced promoter activity. The binding of MIBP1 to SSTR-2 activates transcription from the SSTR-2 promoter. Expression of SSTR-2 regulates the adenohypophyseal release of growth hormone, thyroid-stimulating hormone, and prolactin, thereby modulating many cognitive and vegetative functions. The transcription function of MIBP1 implies that MIBP1 may play an important role in the development of nervous and neuroendocrine tissues.

REFERENCES

- van't Veer, L.J., Lutz, P.M., Isselbacher, K.J. and Bernards, R. 1992. Structure and expression of major histocompatibility complex-binding protein 2, a 275-kDa zinc finger protein that binds to an enhancer of major compatibility complex class I genes. Proc. Natl. Acad. Sci. USA 89: 8971-8975.
- Katz, D.M., He, H. and White, M. 1992. Transient expression of somatostatin peptide is a widespread feature of developing sensory and sympathetic neurons in the embryonic rat. J. Neurobiol. 23: 855-870.
- Epelbaum, J., Dournaud, P., Fodor, M. and Viollet, C. 1994. The neurobiology of somatostatin. Crit. Rev. Neurobiol. 8: 25-44.
- Makino, R., Akiyama, K., Yasuda, J., Mashiyama, S., Honda, S., Sekiya, T. and Hayashi, K. 1994. Cloning and characterization of a c-Myc intron binding protein (MIBP1). Nucleic Acids Res. 22: 5679-5685.
- Kong, H., DePaoli, A.M., Breder, C.D., Yasuda, K., Bell, G.I. and Reisine, T. 1994. Differential expression of messenger RNAs for somatostatin receptor subtypes SSTR1, SSTR2 and SSTR3 in adult rat brain: analysis by RNA blotting and *in situ* hybridization histochemistry. Neuroscience 59: 175-184.
- Dimech, J., Feniuk, W., Latimer, R.D. and Humphrey, P.P. 1995. Somatostatin-induced contraction of human isolated saphenous vein involves SST2 receptor-mediated activation of L-type calcium channels. J. Cardiovasc. Pharmacol. 26: 721-728.
- Tannenbaum, G.S., Zhang, W.H., Lapointe, M., Zeitler, P. and Beaudet, A. 1998. Growth hormone-releasing hormone neurons in the arcuate nucleus express both SST1 and SST2 somatostatin receptor genes. Endocrinol. 139: 1450-1453.
- Dorflinger, U., Pscherer, A., Moser, M., Rummele, P., Schule, R. and Buettner, R. 1999. Activation of somatostatin receptor II expression by transcription factors MIBP1 and SEF-2 in the murine brain. Mol. Cell. Biol. 19: 3736-3747.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Hivep2 (mouse) mapping to 10 A2.

SOURCE

MIBP1 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MIBP1 of mouse origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10685 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10685 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

MIBP1 (T-20) is recommended for detection of MIBP1 of mouse and rat Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MIBP1 (T-20) is also recommended for detection of MIBP1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MIBP1 siRNA (m): sc-38038, MIBP1 shRNA Plasmid (m): sc-38038-SH and MIBP1 shRNA (m) Lentiviral Particles: sc-38038-V.

MIBP1 (T-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MIBP1: 275 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2783 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.